

## 【CLAIMS】

### 【Claim 1】

A sump of a dishwasher having a plurality of nozzles for spraying washing water, the sump comprising:

- a sump case for storing the washing water;
- a sump cover covering the sump case;
- a self-cleaning filter installed on the sump cover to filter foreign objects contained in the washing water stored in the sump case;
- a washing pump for pumping out the washing water stored in the sump case;
- a pump lower receiving the washing pump and providing a soil chamber in which the foreign objects contained in the washing water are accumulated;
- a washing motor installed on the sump case to drive the washing pump;
- a drain pump installed on the sump case to drain the washing water; and
- a drain motor for driving the drain pump.

### 【Claim 2】

The sump according to claim 1, further comprising a fluid passage guide installed on the sump cover to guide the flow of the washing water pumped out

by the washing pump.

**【Claim 3】**

The sump according to claim 1, further comprising a disposer for grinding the foreign objects by rotating by the washing motor.

**【Claim 4】**

The sump according to claim 1, further comprising a screen filter installed on the pump lower to filter foreign objects contained in the washing water flowing toward the washing pump.

**【Claim 5】**

The sump according to claim 1, further comprising a vario valve installed on the sump case to dispense the washing water pumped out from the washing pump to the plurality of nozzles.

**【Claim 6】**

The sump according to claim 5, further comprising a driving motor for driving

the vario valve, a cam rotating by the driving motor, and a micro switch for detecting the rotation of the cam.

**【Claim 7】**

The sump according to claim 1, further comprising a turbidity sensor for detecting a pollution level of the washing water.

**【Claim 8】**

The sump according to claim 1, further comprising a heater installed on the sump case to heat the washing water.

**【Claim 9】**

The sump according to claim 1, further comprising a sealing member installed on a shaft of the washing motor.

**【Claim 10】**

The sump according to claim 1, further comprising a sealing member disposed

along an outer circumference of the washing pump.

**【Claim 11】**

The sump according to claim 1, further comprising a lower nozzle holder installed on the sump cover to connect the nozzles to the sump cover.

**【Claim 12】**

The sump according to claim 11, where the sump cover is provided with a leaked water collecting chamber for collecting the washing water leaking at a connection with the nozzle holder and a water drain hole for returning the washing water collected in the leaked water collecting chamber into the sump case.

**【Claim 13】**

The sump according to claim 1, further comprising a nozzle holder installed on the self-cleaning filter to guide the washing water to the nozzles.

**【Claim 14】**

A sump of a dishwasher having a plurality of nozzles for spraying washing water, the sump comprising:

a sump case;

a self-cleaning filter for filtering foreign objects contained in the washing water stored in the sump case;

a sump cover coupled to the self-cleaning filter and provided with a return hole through which the washing water flowing backward through the self-cleaning filter is returned to the sump case;

a pump unit for pumping out the washing water stored in the sump case;

a guide member for guiding the flow of the washing water pumped by the pump unit; and

a drain unit for draining the washing water.

**【Claim 15】**

The sump according to claim 14, wherein the sump cover has a backflow hole through which the washing water flowing backward to the self-cleaning filter passes and a leaked water collecting layer on which the foreign objects contained in the washing water passing through the backflow hole are accumulated.

**【Claim 16】**

The sump according to claim 14, where the sump cover is provided with a leaked water collecting rib for collecting leaked water pumped out from the pumping unit to flow to the nozzles.

**【Claim 17】**

A sump of a dishwasher having a plurality of nozzles for spraying washing water, the sump comprising:

- a sump case;
- a sump cover covering the sump case;
- a fluid passage guide installed on the sump cover to guide the flow of the washing pump;
- a pump lower receiving a pumping unit and providing a soil chamber in which the foreign objects contained in the washing water are accumulated;
- a dispensing unit for dispensing washing water pumped out from the pumping unit to the nozzles;
- a turbidity sensor for detecting a pollution level of the washing water; and

a washing motor for driving the pumping unit.

**【Claim 18】**

The sump according to claim 17, wherein the pumping unit comprises an impeller connected to the washing motor to suck the washing water and a pump case for directing the washing water sucked by the impeller to the dispensing unit.

**【Claim 19】**

The sump according to claim 17, wherein the pump lower is provided with a seating groove on which a sealing member seats.

**【Claim 20】**

The sump according to claim 17, wherein the pump lower is provided with a washing water introducing hole through which the washing water is introduced from the pumping unit.